

(These is a letter taken from Mr.Stamenkovic and Mr.Folland correspondece.They have discused the wood preparation issue.)

*Dear Mr. Folland,*

*I would like to share a story about the experience of Mr. Gaspar Borchardt of Cremona : I discussed with him the problems of wood treatment a lot of times.*

During the better part of fifteen years we have been acquainted, first mistake he made was his lack of patience which resulted in the wood he was working with being taken out of the water too early ( after about 6 months ), second mistake he made was using the same wood to make a violin a few months latter. His third mistake was that the next batch of wood he attempted to treat was submerged with a too low a ratio of water to wood ( too little water too much wood ), 102 mistake he made was ....., 403 mistake he made was...

It took a few years for him to completely unintentionally go back to the first batch of wood he attempted to treat and unhappy with the results dismissed the value of the wood treatment. He made a violin which he did not consider important but when completed turned out to sound incredible, his lack of patience was compensated for by time, and the bacteria in the wood completed the process by themselves in the course of the few years they were left on their own. I hope you understand that the treatment does consist of submerging the wood in water ; active processes start at the point of wood being taken out of the water.

**The important thing is to understand that after the wood is taken out of the water the real treatment begins; and that the wood instead of being immediately dried should be kept moist as long as possible.**

The story about Paolo Vetorri :ten years ago, he made the trip from Bologna in order to share his short story with me : " I was very young, at the beginning of my career, my grandfather talked me into submerging a great quantity of wood ( Into which I had sunk my life savings ) under water. I did so and after a while the wood turned very dark and practically unusable. I was very angry at my grandfather and did not speak to him for a long time believing that he ruined the beginning of my career. Only now, after 50 years do I realize my mistake; I had not submerged the wood properly so it was, after absorbing a great quantity of water, partly exposed to air. This caused it to darken and be unusable. Now I know that you and my grandfather are right".

What I am trying to say, is that making mistakes in this process is inevitable, but large mistakes can be avoided if : you allow app. 10 liters of water per one piece of violin wood; put it all into a container that does not have acidic reactivity ( plastic container ), under no circumstances into a metal one; this wood should be kept under water at all times with a glass or a plastic weight , stone and metal both cause acidic reactions,wait until the wood stays at the bottom by itself after the weight is removed and than leave it for another few months under water until the wood is completely permeated with water to its core.

*Allow me to digress a little regarding your comment that it is necessary for the wood to be fresh in order to be treated. If we assume that average air humidity of our environment is 77 % we can then conclude that the wood stored in your workshop is NEVER dry, however much you hoped for it and that this wood, as any other organic matter, contains bacteria within. This bacteria may not be completely active and able to proliferate. But they are not, by any means dead. They can lay dormant for years until necessary conditions of humidity and temperature are met. Therefore it is absolutely possible to treat the wood which has been stored for extensive periods of time.*

Let us go back to our previous theme. So ; you have taken the wood out of the water; now the real process starts and also the possibility of making mistakes raises dramatically .  
Example :

a. you have stored the wood in a place that dries it too fast,the bacteria get lazy again before they have disintegrated enough sugars within the wood;

**b.** you have stored the wood in a place too humid ( a cellar for example ), on the surface a fine cobweb has formed, yeast has developed which enter the structure of wood, eat the basic protein structure of wood and your wood is now unusable;

**c.** you have done everything correctly, but have stored the wood on a shelf and are patiently waiting for months only to discover that yeast has formed again on the surface of the wood touching the shelf it was stored on. Oh no ! You have forgotten to elevate the wood from the surface so that the air can circulate freely.

**d.** you have done this previous point correctly but have forgotten to leave the necessary distance of min. 3 centimeters between two pieces of wood, in this space excess humidity allowed the yeast to form and again you have a problem.

**e.** you have done the previous correctly as well, but have allowed the back of the wood to be too close to the wall and again yeast has attacked.

**f.** Very important question is if the wood has been stored on the shelf ( strip of wood separating it from the shelf ) with the bottom surface being the wider part of the wood or if you have laid it down on it's side ?

My visit to Guiccardi 1999: he showed me 150 pieces of violin maple wood in his workshop of which he considered 147 to be inferior and only 3 usable for making a high quality violin; when split, only the 3 pieces had the same tone on the left and the right side when knocked on. He was desperate because all of the wood was of high quality to start with and he could not fathom why this was happening.

" Only these three pieces can be used to make high quality violins the rest also have to be used for violins, and this leaves me with an existential and moral problem, because I can not make a living from just three violins ".

I tried to explain to him that in wood stored in this manner ( on top of each other ), humidity in worm months moves upwards just as vapors do and that in the more humid parts of the wood, being permeated with more active bacteria, less sugar remains therefore making the difference in tone inevitable. Generally his problem contained in his less than careful storage of wood.

**g.** You have done everything right, but somewhere between 12.00 and 1.30 on a summer day sun enters your workshop and lingers on the wood for a while, your wood starts drying too rapidly and cracking, micro air pockets have formed within the wood , your hair has risen and at this point you responsibly decided to change your profession...

**My advice: find 3 pieces of maple wood cut from the same tree and also 3 pieces of spruce wood also cut from the same tree, mark each of them with a date. First set a maple and a spruce store exactly as you have been doing so far in your workshop. Second set a maple and a spruce throw into the water as I previously elaborated.**

***THIRD SET A MAPLE AND A SPRUCE, AS THE OLD MASTERS PROBABLY DID, LEAVE SOMEWHERE IN YOUR YARD WHERE THEY ARE NOT EXPOSED TO TOO MUCH HUMIDITY, NOT EXACTLY ON THE GROUND, WHERE THEY ARE SOMETIMES TOUCHED BY THE SUN AND SOMETIMES RAINED ON.***

The second set of wood you should take out of the water after approximately 18 months and follow my previous instructions perfectly, and please avoid any mistakes!

***DO NOT BE CONCERNED IF THE WOOD FROM YOUR THIRD SET TURNED GRAY, IT IS ONLY ON THE SURFACE, INSIDE IT HAS BEAUTIFUL GOLDEN BROWN COLOR, THE CRACKS FORMED BY THE SUN ARE NOT DEEPER THAN 6 MILLIMETERS, SO YOU CAN CUT THEM OFF WITHOUT A PROBLEM. SOMETIMES ROTATE THE WOOD, MOVE IT TO ANOTHER CORNER IN YOUR YARD... IN OTHER WORDS TREAT IT AS ANY WOODWORKER EVEN TODAY TREATS HIS WOOD; WITH EASE AND NO TREPIDATION.***

Few years later make violins out of the three sets of wood, one after the other. Compare them.

**My comment : If you allowed me I would advise you to skip the first two experiments altogether- you are wasting your time !**

Don't think it is easy for me while my wife ( whose English is much better than mine ) is translating this letter to you. I would just be very happy if I managed to save you 30 years of unnecessary and painful experiments.

*Milo Stamenkovich*